

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES**

In Re: Application of:

Date: **May 23, 2008**

**Allen Berger, Jr.**

Serial No. **10/822,079**

Art Unit: **3634**

Filed: **April 12, 2004**

Examiner: **Blair M. Johnson**

For: **"GARAGE DOOR REINFORCEMENT SYSTEM"**

Attorney Docket No. **240061.4**

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**BRIEF FOR APPELLANT**

Board of Patent Appeals and Interferences  
U.S. Patent and Trademark Office  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Honorable Board Members:

This is an appeal for the Office Action finally rejecting claims 1 through 4 on September 25, 2007 . The claims on appeal are included in the Appendix. A notice of appeal and extension of time fee were filed on March 25, 2008.

## **I. REAL PARTY IN INTEREST.**

The original applicant and inventor, Allen Berger, Jr., controls, along with other family members, DAB Door Company, Inc., which is the real party in  
5 interest by virtue of an assignment recorded in reel 015909, frame 0585.

## **II. RELATED APPEALS AND INTERFERENCES.**

There are no other related appeals or interferences.

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## **III. STATUS OF CLAIMS.**

The following claims were included in the amendment filed on March 19,  
2007:

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1. (Rejected). In a reinforced garage door in which said garage door has a plurality of panels, having a horizontal width and a vertical height, which panels are monolithic for the entire length of the panels, with adjacent panels above such panels having reversely folded edge portions with  
20 complementing joints along the top edge and the bottom edge, such panels

having open end members, open reinforcing members space vertically and interiorly of the door, and means for securement at the extreme lateral edges to a track for raising and lowering the door, the improvement comprising a plurality of longitudinal unitary reinforcement members insertable

5 horizontally and interiorly of the complementing joints top and bottom longitudinal reversely folded edge portions of the panel from one end thereof to the other uninterrupted and having conforming longitudinal portions for said complementing joints and coming in abutting longitudinal contact with the latter.

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2. (Rejected). The reinforced garage door set forth in claim 1 wherein said reinforcement is formed with first, second, third, fourth and fifth folded longitudinal walls, said first and second walls being parallel and spaced apart by said third wall to which the former are perpendicularly mounted, and said fourth and fifth walls being inwardly folded from said first and second walls and said fourth and fifth walls kept next to each other in the same plane, said fourth and fifth wall conforming to the contour of said complementing joints.

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3. (Rejected). The reinforced garage door set forth in claim 2 wherein said complementing joints are of the tongue and groove type and said conforming longitudinal portions are also of the tongue and groove type.

5 4. (Rejected). The reinforced garage door set forth in claim 2 wherein said complementing joints are of the shiplap type and said conforming longitudinal portions are also of the shiplap type.

#### **IV. STATUS OF AMENDMENTS.**

10 The Examiner entered the amendment filed on March 19, 2007, mentioned above. The claims read as included in the appendix. A request for reconsideration and amendment after final rejection was filed on May 2, 2008, along with a declaration from Applicant. The Examiner has not acted on the request and the  
15 only amendment of claim 1 relates to the proposed deletion of the words “open reinforcing members” which can be optionally used without affecting the subject matter claimed herein. These are conventional reinforcement that the present invention attempts to eliminate or reduce its need substantially.

## V. SUMMARY OF THE CLAIMED SUBJECT MATTER.

The present invention relates to a novel garage door reinforcement system.

In May, 2000, Applicant received U.S. patent No. 6,062,293 for a garage door

5 reinforcement device. Applicant has been in the garage door business for many years. Facing the problem of providing sufficiently reinforced garage doors to meet the local authorities' wind tests, Applicant and others in the industry have designed many devices that meet this need while typically augmenting the cost of materials, transportation, maintenance and installation, as well as the weight of the door  
10 assembly. See Leist reference, col. 1 verifying some of the problems faced by manufacturers in the industry. With more weight, the need to upgrade the motor's capacity to move the door is quite apparent. Merely making the door panels thicker will increase the cost of the door assembly. Applicant's invention resides in the novel approach to solve this problem by selectively reinforcing the most  
15 vulnerable portions of the door assembly, the joint folds, with reinforcement members. This is accomplished by using a plurality of longitudinal unitary reinforcement members labeled as reinforced runners 50 and 60 and best illustrated in figure 4 of the present application. Runners 50 and 60 include longitudinal portions that conform to complementing joints and come in abutting longitudinal

contact with them. Runner 50 includes longitudinal curved portions 57 and 57' that conform to longitudinal tongue 32

The unexpected results obtained by conforming these longitudinal portions of Applicant's previously used unitary reinforcement members have been documented with Applicant's declaration. This change in his manufacturing practices has contributed to the commercial success experienced with his new doors. Applicant's doors now pass the same wind tests using less conventional outside reinforcement members, using less steel.

## **VI. GROUNDS FOR REJECTION TO BE REVIEWED ON APPEAL**

Claims 1 through 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. There was no confusion between the conventional outer reinforcement members and the unitary reinforcement members that are interiorly mounted and conforming to the joints. Notwithstanding this, with the proposed amendment, this objection is overcome. The open reinforcing members are conventional, optionally used and quite different from the unitary reinforcement member.

Claims 1 through 4 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Leist et al. (U.S. patent No. 5,555,923).

Claims 1 through 4 are rejected under 35 U.S.C. 103(a) as being  
 5 unpatentable over Berger, Jr. (U.S. patent No. 6,062,293).

## VII. ARGUMENTS.

References relied by the Examiner:

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<u>Patentee</u>	<u>Patent No.</u>	<u>Publication Date</u>
Leist et al.	5,555,923	September 17, 1996
Berger, Jr.	6,062,293	May 16, 2000

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Claims 1 through 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With the proposed amendment, this objection is overcome. There is no confusion between the conventional outer reinforcement members and the unitary reinforcement members that are interiorly  
 20 mounted and conforming to the joints.

Claims 1 through 4 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Leist et al. (U.S. patent No. 5,555,923). Applicant respectfully disagrees. Basically, there are several hurdles for the application of Section 102 based on the Leist patent.

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1. A non-unitary telescopic arrangement and interrupted bars 32 that fail to provide the structural integrity that is required to pass the pertinent high wind tests. Not having a continuous unitary reinforcement member compromises the rigidity of the garage door.

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2. The location of the reinforcement in Leist is outside the folded ends of the panels, which are the most vulnerable portions of the doors. Members 32 in Leist are placed a considerable distance away from these articulation folds referred to as male and female joint members 66 and 68 in Leist's patent. Leist's Col. 6,

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lines 4- 6. See also Leist's figure 4. So, even if the discrete "telescopic" reinforcement pieces disclosed are to be interpreted as equivalent to the unitary reinforcement member, their location makes them ineffective to protect the joint members 66 and 68.

3. Lastly, the conforming characteristics to the folded articulations is not even suggested by Leist. The Examiner equates the conforming of the shape of the joints to Applicant's conforming of the reinforcing members to the shape of the joints. See p. 2, last paragraph, of final Office action. There is no attempt to discuss the vulnerability that joint members 66 and 68 present. Leist was not even concerned about this problem. The present invention selectively strengthens the joints by conforming the reinforcing members to the longitudinal shape of the folds or joints. This feature is just not present in Leist.

Claims 1 through 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berger, Jr. (U.S. patent No. 6,062,293). . Berger's patent, on the other hand, includes a unitary reinforcement piece in the folded area. Berger's patent does not disclose conforming longitudinal portions of the reinforcement piece. But it was precisely this finding of conforming the reinforcement member to the interior of the articulations or joints that is responsible for the unexpected results obtained. Claim 1 includes the following language:

... a plurality of longitudinal unitary reinforcement members

insertable horizontally and interiorly of the

complementing joints...

... and having conforming longitudinal portions...

It is the unexpected result experienced by conforming the reinforcement members that permits the Applicant to manufacture his reinforced garage doors with a minimum of weight and cost. In the roll forming industry, the sheets of metal have a uniform pre-selected gauge. So, it would not be possible to form portions of the folds with thicker material while the rest of the panel is made with the thinner material. The effect of the conforming longitudinal portions of the reinforcement members that come in abutting longitudinal contact with the joints is equivalent to using thicker (stronger) material in selective places (i.e. the vulnerable joints). This feature has not been taught or suggested in the cited references, taken singly or in combination. Not even the Applicant suspected that this change in the configuration and cooperation of his reinforcement member would have such an effect. It would be reasonable to expect the Applicant herein to have incorporated this change, had it been known at the time of the invention, since there has been a substantial economic reward for implementing it. It was not until after hundreds of doors were manufactured that the inventor came across his invention. There was no reason for the inventor herein to have looked at Leist's disclosure to modify Applicant's original design disclosed in Berger's patent. In

fact, Leist would have required the Applicant to move the reinforcement members away from the joints, something that will prevent it from working.

Applicant is not unmindful of the KSR admonition against a rigid

5 application of the TSM (teaching, suggestion motivation) test. *KSR v. Teleflex*, 127 S. Ct. 1727, 1740, 167 L. Ed.2d 705, 82 U.S. P.Q.2d, 1385 (2007).

Nonetheless, the test is not inconsistent with the Graham analysis. *Id* at 1731. And that the test can be used to provide helpful insights on the issue of obviousness. *Id*.

See also, *Takeda Chemical Indus. v. Alphafarm Pty., Ltd.*, slip op., 492 F.3d

10 1350, 2007 W 1839698 (Fed. Cir. 2007). Thus, the TSM test can be a good starting point to identify “a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does” in an obvious determination. *KSR* at 1731, *Takeda* at 1356-1357.

15 Berger’s patent teaches the use of unitary reinforcement members that Leist fails to disclose. In fact, Leist teaches away from using a unitary member and opts for subpanel channels to improve its transportation logistics. Leist, Col. 1, lines 29-42.<sup>1</sup> Leist needs to connect his connecting bars 32 to each other by providing a reduced portion 38 and an enlarged portion 40. Leist, Col. 5, lines 23-45. It can be

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<sup>1</sup> Panels 12a, 12b, 12c and 12d, each, are composed of subpanels 14a, 14b, 14c and 14d. Col. 4, lines 30-32.

seen in Leist's figure 4 that connecting bar 32 is placed away from the articulating joint (fold), let alone conform to the joint. In the present invention the reinforcement member conforms to the shape of the joints providing additional effective reinforcement.

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In Takeda, the patentee had included fifty four compounds in the parent application (subsequently patent '200) yet the applicant had not particularly identified the species for the advantages later sought in the continuation patent. See Takeda at 1357. Yet, the appellant in that case was unable to make its *prima*

10 *facie* showing of obviousness. Similarly, for this mechanical invention, the inventor disclosed a unitary interiorly disposed reinforcement member that extends the entire length of the garage door assembly in his patent (the Berger patent).

Conceivably, his Berger patent claim may be considered a genus for the claims in the present case that did not identify the particular feature that resulted when the  
15 reinforcement, inside the joint, was made to actually conform to its shape. It was upon subsequent experimentation with the reinforcement member that the inventor herein came across this solution to the industry wide quest to make doors with the least amount of material and yet withstand wind forces. The conforming feature of the reinforcement members effectively and selectively provides the strength  
20 solution found by the inventor after his obtaining his patent. There was no reason

to compel the inventor, or anyone else, at the time of the invention consider conforming the shape of the reinforcement to the articulated joints of the panels.

Leist was concerned about making the door assembly more portable to alleviate transportation problems and Berger was concerned with introducing a unitary

5 reinforcement piece that could be interiorly placed. It was not until the Applicant conformed the shape of its reinforcement member to those of the joints that the unexpected results were obtained, namely, passing the wind tests with less outer reinforcement members ( that are aesthetically unattractive).

10 There is no showing of “adequate support in the prior art” for the change in the structure. *In re Grabiak*, 769 F.2d 729, 731-32 (Fed. Cir. 1985).

## VIII. CLAIMS APPENDIX

15 1. In a reinforced garage door in which said garage door has a plurality of panels, having a horizontal width and a vertical height, which panels are monolithic for the entire length of the panels, with adjacent panels above such panels having reversely folded edge portions with complementing joints along the top edge and the bottom edge, such panels having open end  
20 members, open reinforcing members space vertically and interiorly of the

door, and means for *securement* at the extreme lateral edges to a track for raising and lowering the door, the improvement comprising a plurality of longitudinal unitary reinforcement members insertable horizontally and interiorly of the complementing joints top and bottom longitudinal reversely folded edge portions of the panel from one end thereof to the other uninterrupted and having conforming longitudinal portions for said complementing joints and coming in abutting longitudinal contact with the latter.

2. The reinforced garage door set forth in claim 1 wherein said reinforcement is formed with first, second, third, fourth and fifth folded longitudinal walls, said first and second walls being parallel and spaced apart by said third wall to which the former are perpendicularly mounted, and said fourth and fifth walls being inwardly folded from said first and second walls and said fourth and fifth walls kept next to each other in the same plane, said fourth and fifth wall conforming to the contour of said complementing joints.

3. The reinforced garage door set forth in claim 2 wherein said complementing joints are of the tongue and groove type and said conforming longitudinal portions are also of the tongue and groove type.

5 4. The reinforced garage door set forth in claim 2 wherein said complementing joints are of the shiplap type and said conforming longitudinal portions are also of the shiplap type.

**IX. EVIDENCE APPENDIX.**

No evidence was adduced in this application.

## **X. RELATED PROCEEDINGS APPENDIX**

There are no related proceedings.

## **XI. CONCLUSION.**

When this invention and the application's claims are fully analyzed and interpreted as explained above, it will be apparent that there is a good and clear  
5 difference between this invention and the cited prior art. When all factors are taken into consideration and given their due weight, it is believed that the Board of Appeals will be able to reverse the Examiner and such is now requested.

Respectfully submitted,

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